



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

JUN 4 1991

MEMORANDUM

SUBJECT: Review of Environmental Test Data for P89-867

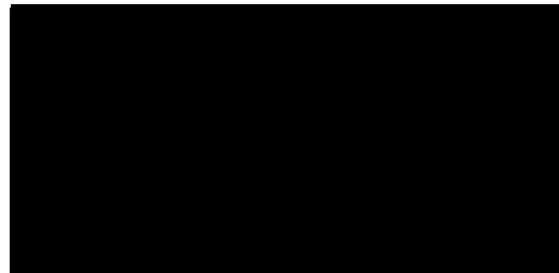
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I have reviewed the test data for P89-867 which is decabromodiphenylethane. This compound has the following physical/chemical properties: CASRN [REDACTED]; log K_{ow} = [REDACTED] (CLOGP Ver. 3.3); solid at room temperature with mp = [REDACTED] to [REDACTED] °C; water solubility \leq [REDACTED] mg/L (est by EEB) and [REDACTED] mg/L (meas by submitter); and MW = [REDACTED]

Predicted environmental toxicity values at FOCUS were no effects at saturation to aquatic organisms for the decabromodiphenylethane, but high concern for the lower brominated isomers resulting from photolysis and other transformation processes in the environment.



(1) FISH ACUTE TOXICITY TEST.

This test is valid. Test methods were: orange red killifish, Oryzias latipes, mean length = 3.0 cm and mean weight = 0.26 g; purity = 96.3%; static renewal method with renewals every 12 h; nominal concentrations; stock = 1 g/L with crystal sugar and poly(ethoxy)sorbitan monoalkyl C18 as dispersants; dilution water was well freshwater with pH = 7.9 and hardness = 106 mg/L; and report #41894:

48-h NOEC = *

* no effects at saturation.

(2) FISH BIOCONCENTRATION TEST.

This test is valid. Test methods were: carp, Cyprinus carpio, mean length = 9.8 cm, mean weight = 245.6 g, and percent lipid = 3.7%; purity = 96.3%; flow-through method with 1155 L/d; measured concentrations with ion chromatography, %R (water) = 82%, %R (fish) = 80.4%, detection limit (water) = 0.002600 mg/L, DL (fish) = 1.2 µg/g, DL (BCF) = 2.5X and 25X; stock = 1 g/L with crystal sugar and poly(ethoxy)sorbitan monoalkyl C18 as dispersants; dilution water was well freshwater with pH = 7.9 and hardness = 106 mg/L; and report #41894:

56-d NOEC = * or 0.051 mg/L;

56-d BCF = 0 or no detectable bioconcentration at 0.0507 and 0.506 mg/L; and

56-d log BCF < 1.0.

* no effects at saturation.

PMN TOXICITY DATA SUMMARY

(One page for each test)



PMN TYPE (Circle One) P L T Y 8(e) FYI
 PMN YEAR (Circle One) 83 84 85 86 87 88 89 90 91 92 93
 PMN NUMBER: 867

REVIEWER: JVN

CHEMICAL CLASS: NO: deca bromo diphenyl ethane

SPECIES TESTED : Common Name Carp MWT = 24.6g ML = 9.8cm
 Scientific Cyprinus carpio % lipid = 3.7%

TIME	TYPE OF TOXICITY VALUE	CONCENTRATION (mg/L)
24h	EC50.....	
48h	EC50.....	
72h	EC50.....	
96h	EC50.....	
24h	LC50.....	
48h	LC50.....	
72h	LC50.....	
96h	LC50.....	
96h	EC10.....	
96h	EC90.....	
<u>96h</u> <u>56d</u>	NOEC.....	<u>0.051 * NTS</u>
96h	LOEC.....	
96h	GMATC.....	
21d	NOEC.....	
21d	LOEC.....	
21d	GMATC.....	
28d	NOEC.....	
28d	LOEC.....	
28d	GMATC.....	
<u>56d</u>	BCF... <u>No detectable Bioconc.</u>	<u>0</u>
 <u>at 0.506 & 0.0507 mg/L.</u>	
<u>56d</u>	<u>logBCP</u>	<u><1.0</u>

ACTIVE INGREDIENT: Convert all effect concentrations to 100% active ingredient. If unknown, report as unknown. (Circle One)

** No effect at saturation*

DT

100% AI Unknown M 101% of N

REMARKS : p = 96.3% ; FT (1155 L/d), M (Ion chromatography)
% R (FW) = 82% ; % R (F) = 80.4% ; DL (FW) = 0.002600 mg/L ;
DL (F) = 1.2 µg/g ; BCF DL = 2.5X and 25X ;
Rpt # 41894 ; Wcd FW, pH = 7.9, H = 106 mg/L ;

